

TXT/braemar \*

# THE ROCKEFELLER UNIVERSITY

*pro bono humani generis*

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Joshua Lederberg

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Dr. Paul Kraemer  
191 Cascabel  
Los Alamos, NM 87544

Dear Dr. Kraemer:

re: BW - Long term prospects

Far from discounting your worst case scenarios, I am as gloomy as you are about the end game of a technology race, even a one-sided one.

I doubt if even a Bin Laden wants to ignite a world that will end up immolating his own people, but

- 1) he needs to be educated about that consequence, and
- 2) there are other end-the-worlders, or other players of of a Doomsday machine.

If we look ahead 10 or 20 years, the offensive capabilities will dominate, and I see no easy technical solution. So, having engaged every other aspect of averting BW for 35 years, I am turning my attention to "primary prevention" and to gaining a bit of time during which to build and reinforce more constructive regimes.

From the enclosures you will see one Rx with which you disagree, namely to play down public excitement about BW. That will also be important to de-amplify public panic about medium scale attacks when they occur.

So I have addressed mainly professionals and high-pols, and avoided the mass media.

I'd say you understate the prospects of the biosphere's genetic engineering, Nature's BW if you like. Look what HIV is already doing to this world. And there will be many more plagues in store for a globalized world.

So let's go to the next step, what can we do in the socio-political as well as technical spheres to avert the apocalypse. An anti-missile defense system at \$100 B and rising won't buy much security and more likely to invite other arms races.

*Joshua Lederberg*

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